RECEIVED
CENTRAL FAX CENTER

JUN 0 8 2007



## REMARKS

This amendment is responsive to the Office Action of March 8, 2007. Reconsideration and allowance of claims 11-17 and 20-32 are requested.

## The Office Action

Claims 10 and 11 stand rejected under 35 U.S.C. § 102 as being anticipated by Sias (US 2003/0035754) or Adiga (US 2004/0005240), and under the Doctrine of Obviousness-Type Double Patenting.

Claims 12 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adiga in view of Karamanos (US 2003/0171092).

Claims 13, 14, and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adiga in view of Karamanos.

Claim 15 stands rejected under 35 U.S.C. § 102 as being anticipated by Adiga in view of Gonzales (US 2004/0084899).

## The References of Record

**Sias** and **Adiga** merely suggest that hydrogen peroxide or other decontaminants can be injected into an HVAC system.

**Gonzales** shows one of the problems encountered in decontaminating ductwork. Particularly, when flow goes around an elbow, a drop in pressure can occur close to the inner surface in a later part of or after the bend. Although not recognized by either Gonzales, Sias, or Adiga, these low pressure regions have a lower concentration of the decontaminant vapor and are not decontaminated as effectively (and potentially not completely).

**Karamanos** is directed to an HVAC system, but does not address decontamination of the HVAC system or of the rooms associated with it.

## The Claims Distinguish Patentably Over the References of Record

**Claim 12** calls for circulating the hydrogen peroxide vapor through the ductwork to include (a) circulating the hydrogen peroxide vapor in one direction, (b) circulating the hydrogen peroxide vapor in an opposite direction, and (c) allowing the hydrogen peroxide vapor to dwell in the ductwork. Neither Sias nor Adiga teach

or fairly suggest circulating the hydrogen peroxide in one direction and then in an opposite direction. To the contrary, both show the mist or vapor being directed through ductwork in a single direction.

Further, neither Sias nor Adiga teach or fairly suggest allowing the vapor to dwell in the ductwork.

Karamanos does not cure either of these shortcomings of Adiga or Sias. First, Karamanos does not relate to the decontamination of ductwork or associated rooms. Second, air circulates in the ductwork of Karamanos only in a single direction. Karamanos has no suggestion or enabling disclosure which would motivate one to or teach one how to circulate the air out of the exhaust and the return and into the outlets. Third, Karamanos makes no suggestion that the decontamination of ductwork can be improved by circulating in opposite directions. Indeed, circulating air through ductwork tends to cause low pressure areas on the leeward side of ridges, on the inside of corners toward the outflow end, and the like. Circulating the decontaminant in opposite directions moves these low pressure areas causing areas which were previously subject only to small concentrations of the vapor or mist to receive a heavier concentration. Neither Karamanos, nor Sias, nor Adiga teach or fairly suggest this benefit. Allowing the vapor to dwell in the ductwork allows it to reach a pressure and concentration equilibrium, exposing all portions of the ductwork to the full concentration of vapor or mist. Again, neither Sias, nor Adiga, nor Karamanos recognize this improvement in ductwork decontamination. Accordingly, it is submitted that **claim 12 and claims 13-15, 20, and 21 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 15** further calls for creating turbulent flow in the ductwork. As pointed out in Gonzales, ductwork is designed to have laminar flow, but that there are some minor points where turbulence might occur and is undesirable. Gonzales would not motivate one to modify Sias or Adiga to create turbulent flow. Only the present applicants have recognized that the turbulent flow, while not efficient for moving air through a ductwork, causes a churning action which helps move decontaminant vapor or mist into corners and crevices. Neither Adiga, Sias, nor Gonzales motivate the reader to create turbulent flow, much less teach the reader that such turbulent flow improves decontamination of ductwork.

**Claim 16** calls for the ductwork to have a plurality of subsystems. Further, when decontaminating the ductwork and associated rooms, claim 16 calls for performing the decontamination starting in the subsystems more remote from the decontamination site and moving progressively toward the decontamination site. Neither Adiga nor Karamanos suggest decontaminating HVAC subsystems much less subsystems from more remote subsystems to subsystems closer to the decontamination site.

The Examiner points out that Adiga can bring the decontaminant generator to a building site and could connect it with any of the HVAC subsystems in the building. Of course, the decontaminant mist will not move from one independent ductwork system to another. Rather, one must connect the decontaminant mist source to each subsystem individually. There is no suggestion or motivation in Adiga regarding whether to start at the contamination site and work out, or vice versa. Moreover, there is no recognition of the advantages outlined in the present application for working from remote subsystems to the subsystems closest to the decontamination site. Accordingly, it is submitted that **claim 16 and claims 11 and 22-26 dependent therefrom** distinguish patentably and unobviously over the references of record.

Claim 17 calls for connecting a temporary baffle with the ductwork. Neither Adiga nor Karamanos disclose or fairly suggest adding temporary baffles with ductwork. Adiga does not address adding baffles. Karamanos discusses the baffles which are a permanent part of the ductwork system. Neither individually nor the combination makes any suggestion of connecting a temporary baffle with the ductwork. Accordingly, it is submitted that **claim 17 and claims 27-32 dependent therefrom** distinguish patentably and unobviously over the references of record.

## Double-Patenting

With the cancellation of claim 10 and changing the dependency of claim 11, it is submitted that the double-patenting rejection has been obviated.

## 35 U.S.C. § 112

Claim 17 has been amended to resolve the 35 U.S.C. § 112 rejection.

RECEIVED
CENTRAL FAX CENTER
JUN 08 2007



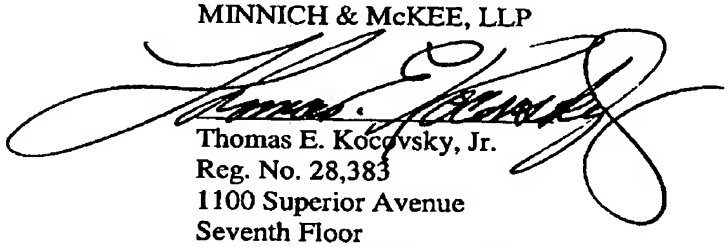
## CONCLUSION

For the reasons set forth above, it is submitted that claims 11-17 and 20-32 distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, she is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & McKEE, LLP



Thomas E. Kocovsky, Jr.
Reg. No. 28,383
1100 Superior Avenue
Seventh Floor
Cleveland, OH 44114-2579
(216) 861-5582

L:\HMM\DATA\2007\MEDZ201313.AMN.DOC